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DATE: February 15, 2012

TO: Kelley Chase, EPA Region 3 OSC
Cynthia Caporale, EPA Region 3 OASQA

THROUGH: Ex. 4 - CBI

FROM: Ex. 4 - CBI

SUBJECT: VERIFICATION/COMPLETENESS CHECK – DIMOCK, PA LABORATORY DATA
File 1201013 FINAL PART 1 of 3 R33907 02 11 12 1308.pdf

Responded ✓

INTRODUCTION

On February 14, 2012, a review of the case narratives and corresponding certificates of analysis from the EPA R3 (Metals and Glycols Report Posted Feb 11)) was reviewed at the SERAS facility in accordance with the Follow-Up Verification/Completeness Check agreed upon during our teleconference on Wednesday 2/8/12.

The assumptions for this review include the following: 1) Case narratives from the Regional labs and/or subcontract labs have been reviewed in accordance with Regional or Environmental Services Assessment Team (ESAT) protocols and contain all pertinent and complete information to conduct the completeness check. SERAS will base this review on the information provided by the laboratory and not on an actual data package; and 2) SERAS will relay any "red" flags to the EPA R3 personnel to resolve and determine data usability.

OBSERVATIONS

In accordance with Table 1 – Field and QC Sampling Summary (Rev01 - 2/3/12), Table 2 – Sample Analytical Requirements Summary (Rev01 – 2/3/12), Methods for Groundwater and Surface Water Samples and the R3 SOPs R3QA159-021511 for ICP, R3QA-116-021511 for ICP-MS and ASTM D 7731-11/EPA SW-846 8321 for glycols, the following observations were noted and need to be clarified/resolved.

File 1201013 FINAL PART 1 of 3 R33907 02 11 12 1308.pdf

1. Table 1 – Field and QC Sampling Summary lists mercury as a metal of interest. No data are reported for mercury in this file.
2. The requested RL on the Methods for Surface Waters and Groundwaters lists the RL for Uranium as 10 µg/L. The laboratory reported 1.0 µg/L. Verify that the RL reported is correct. The RL of 1.0 ug/L is correct.
3. For the LCS and MS reported with Batch 22503, uranium is not reported for either the LCS or MS even though uranium is reported for the field samples and a duplicate result if available for uranium. Verify that this was not a laboratory oversight. The LCS and MS did have uranium in the spike mix. The results were mistakenly not included in the report. This was an oversight. The LCS and MS both had passing results for uranium.

SERAS-001-DSR-021512_Dimock_2

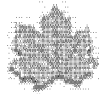
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4. There is no explanation for the "J" flag reported for manganese for sample HW02z in the case narrative. It is not known if this result exceeded linear range or there is another explanation that is not apparent. The manganese result was flagged due to a failing matrix spike result.
5. Due to lack of project action limits, it was noted that several metals exceeded the Maximum Contaminant Levels (MCLs): Iron for samples HW02, HW02z, HW05, HW06 and HW12; manganese for samples HW02, HW02z, HW06, HW02z-F, HW02-F, HW08a-F, HW08a, HW12 and HW12-F; and aluminum for sample HW06.
6. There were several non-typical metals that were detected in some of the drinking water samples for which no MCLs are available: Strontium for samples HW04, HW04-F, HW02, HW02z, HW-01, HW05, HW06, HW06-F, HW02z-F, HW01-F, HW02-F, HW05-F, HW12, HW17 and HW17-F; uranium for samples HW04, HW04-F, HW02, HW02z, HW05, HW06, HW06-F, HW02z-F, HW02-F, HW05-F, HW12, HW17 and HW17-F; boron for samples HW06, BW06-F, HW24, HW24-P, HW12, HW12-F, HW24-PF and HW24-F; and lithium for samples HW06, HW06-F, HW24 and HW24-P.
7. For glycols, the case narrative states that all applicable OASQA On Demand QA/QC protocols were followed. It is not apparent if the data were qualified by the laboratory based on precision and accuracy data since no QC data are available in the laboratory report. QC Data was included in the report. LCS recoveries that exceeded limits (limits were based on suggested criteria in SW846-800-C) were qualified "A". No target analytes were detected and no impact on the data is expected.
8. It is assumed that all required instrument QC in the method was run and was within the criteria listed in the EPA R3 SOPs since this information is not available in the laboratory report.

During the review of this file, it was noted that copies of COC 3-043013577-012412-0012, 3-043013577-012412-0013 and 3-043013577-012412-0014 are not available in the COC folder on the ftp site. It was also noted that samples HW08a and HW08a-F for metals were requested on both COC 3-043013577-012712-0006 and 3-043013577-012712-0002. The laboratory noticed this discrepancy and analyzed the samples only once.

cc: Sella Burchette, SERAS Project Officer
John Gilbert, ERT WAM
Gary Newhart, ERT WAM
Ex. 4 - CBI SERAS Task Leader

SERAS-001-DSR-021512_Dimock_2



Re: Dimock Follow-Up Verification/Completeness Check

Cynthia Caporale to: Ex. 4 - CBI

02/23/2012 06:11 PM

Cc: Ex. 4 - CBI Kelley Chase,
Ex. 4 - CBI

The report on the Dimock Verification/Completeness Check for file 1201013 FINAL Part 1 of 3 R33907 02 11 13 1308.pdf was reviewed and below are the responses for your consideration.

File 1201013 FINAL PART 1 of 3 R33907 02 11 12 1308.pdf

1. Table 1 – Field and QC Sampling Summary lists mercury as a metal of interest. No data are reported for mercury in this file.

Response: Mercury results are included in Part 3 of 3 with Inorganics.

2. The requested RL on the Methods for Surface Waters and Groundwaters lists the RL for Uranium as 10 µg/L. The laboratory reported 1.0 µg/L. Verify that the RL reported is correct.

Response: The RL of 1.0 ug/L is correct.

3. For the LCS and MS reported with Batch 22503, uranium is not reported for either the LCS or MS even though uranium is reported for the field samples and a duplicate result if available for uranium. Verify that this was not a laboratory oversight.

Response: The LCS and MS did have uranium in the spike mix. The results were mistakenly not included in the report. This was an oversight. The LCS and MS both had passing results for uranium and information is included in the case file. A supplemental report with the QC results can be generated upon request.

4. There is no explanation for the “J” flag reported for manganese for sample HW02z in the case narrative. It is not known if this result exceeded linear range or there is another explanation that is not apparent.

Response: The manganese result was flagged due to a failing matrix spike result. For future reports, the narratives will include this type of information for clarity.

5. Due to lack of project action limits, it was noted that several metals exceeded the Maximum Contaminant Levels (MCLs): Iron for samples HW02, HW02z, HW05, HW06 and HW12; manganese for samples HW02, HW02z, HW06, HW02z-F, HW02-F, HW08a-F, HW08a, HW12 and HW12-F; and aluminum for sample HW06.

No comment.

6. There were several non-typical metals that were detected in some of the drinking water samples for which no MCLs are available: Strontium for samples HW04, HW04-F, HW02, HW02z, HW-01, HW05, HW06, HW06-F, HW02z-F, HW01-F, HW02-F, HW05-F, HW12, HW17 and HW17-F; uranium for samples HW04, HW04-F, HW02, HW02z, HW05, HW06, HW06-F, HW02z-F, HW02-F, HW05-F, HW12, HW17 and HW17-F; boron for samples HW06, BW06-F, HW24, HW24-P, HW12, HW12-F, HW24-PF and HW24-F; and lithium for samples HW06, HW06-F, HW24 and HW24-P.

No comment.

7. For glycols, the case narrative states that all applicable OASQA On Demand QA/QC protocols were

followed. It is not apparent if the data were qualified by the laboratory based on precision and accuracy data since no QC data are available in the laboratory report.

Response: QC Data was included in the report. LCS recoveries that exceeded limits (limits were based on suggested criteria in SW846-800-C) were qualified "A". No target analytes were detected and no impact on the data is expected.

8. It is assumed that all required instrument QC in the method was run and was within the criteria listed in the EPA R3 SOPs since this information is not available in the laboratory report.

Response: This assumption is correct and future reports will include a statement in the narrative.

Overall, based on the above comments and response an impact to result values or qualifiers does not seem warranted.

In addition, as a follow-up to our conversation, the lab qualifiers in the R3 EDD reports are included in the column with header "results_comments" and not the column titled "lab_qualifiers." This is an Element issue and the lab_qualifier column includes the code "D," which may be related to "detected" but this needs confirmed by the vendor of our LIMS. The results_comments column includes the appropriate qualifiers placed by the laboratory and should be used instead.

If you should have any questions or need further discussion on the above response please feel free to contact me or Robin Costas at 410-305-2659.

Cynthia Caporale, Chief
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Ex. 4 - CBI

.....for file 1201013 FINAL Part 1 o...

02/15/2012 11:47:47 AM

From: Ex. 4 - CBI
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Burchette/ERT/R2/USEPA/US@EPA, Ex. 4 - CBI
Date: 02/15/2012 11:47 AM
Subject: Dimock Follow-Up Verification/Completeness Check

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